

REMARKS

Objections to the specification are noted, and corrections on pages 11 (regarding Figure 12), 13, 14, 16, 32 and 33 are introduced herein without adding new subject matter.

Allowability of dependent claims 6-9 is noted with appreciation, but these claims have been objected to for depending from rejected base claim. These claims now depend from amended base claims, and additionally the original subject matter thereof has been rewritten as new independent claims 12-15 to incorporate the subject matter of all original intervening claims, and to provide the Examiner with fresh copies of the combined claims. Dependent claims 6-9 and new claims 12-15 are therefore submitted now to be patentable to Applicant.

Claims 1-4 and 10-11 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over PENG, Jian et al. in view of KUNIYOSHI Y et al. In response, claims 1 and 2 have been amended to define the invention with greater particularity, and claims 19 and 20 have been added to define the subject matter of claims 10 and 11.

As amended, claim 1 defines the plural observing camera devices that comprise lenses of non-central projection comprising fisheye lenses. Each of the lenses of non-central projection provides a central area and an edge area (not a peripheral area) around the central area, of the field of view thereof, the central

area having a higher certainty than the edge area in determining a distance from the automatic work apparatus to the target. The certainty determining unit determines a certainty in determining the distance using the view positions and data regarding the central area and the edge area. The rotation controller controls the rotation device to change the viewing direction of the observing camera devices in accordance with the determined certainty. This feature is not disclosed in the references PENG and KUNIYOSHI Y. et al. Thus, claim 1 as amended is now submitted to be patentable over PENG, Jian et al. in view of KUNIYOSHI Y et al. Claim 19 is similarly defined and is submitted to be patentable over PENG, Jian et al. in view of KUNIYOSHI Y et al.

Similarly, amended claim 2 defines the controller that controls the first device such as the rotation device to effect the first movement (such as rotating) regarding the direction in accordance with the determined direction when the target is in the edge area and the second device such as the arms and legs when the target is in the central area to effect a second movement (such as hitting and approaching) regarding the direction and the distance. These aspects of the claimed invention are not disclosed in the references PENG and KUNIYOSHI Y. et al. Thus, claim 2 is submitted to be patentable over PENG, Jian et al. in view of KUNIYOSHI Y et al. Claim 20 is similarly defined and is also submitted to be patentable over PENG, Jian et al. in view of KUNIYOSHI Y et al. Dependent claims 3-5 are

further limited by the defined second device, or by specifying only picture elements that correspond to a reference color, or by labeling an extracted image with an ID.

Claim 16 defines the first device as the rotation device of claim 2, and claim 17 defines the second device as the rotation device of claim 2. Claim 18 is supported, for example, by Fig. 14 and the associated descriptions including at lines 9-11 of page 28. These aspects of the claimed invention are not disclosed in PENG, Jian et al. and KUNIYOSHI Y et al, and these claims are therefore submitted to be allowable.

New claims 12-15 define the subject matter of original claims 6 to 9 that were indicated to be allowable. Thus, new claims 12-15 are submitted to be allowable.

Each of the claims in this application is now submitted to be in condition for allowance. Favorable reconsideration of this application, as amended, is therefore respectfully requested.

Respectfully submitted,
Chiaki Aoyama,

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By: /Albert C. Smith/
Albert C. Smith, Reg. No.: 20,355
Fenwick & West LLP
801 California Street
Mountain View, CA 94041
Tel.: (650) 335-7296

Fax: (650) 938-5200